CLAIMS

We claim as our invention:

1. A server system, comprising:

a first apparatus having a data store for storing data and operating among a plurality of alternate operating modes; and

a second apparatus adapted to access said data store of said first apparatus;

wherein said data store comprises a first data storage device and a durable data storage device capable of withstanding higher levels of vibration than said first data storage device, and

said first apparatus utilizing said durable data storage device when operating in a first mode selected from the plurality of operating modes in response to an access request from said second apparatus, and

said first apparatus utilizing said first data storage device when operating in a second mode selected from the plurality of operating modes in response to an access request from said second apparatus.

2. The system according to Claim 1,

wherein said first apparatus utilizes said first data storage device and said durable data storage device when operating in a third mode selected from the plurality of operating modes in response to an access request from said second apparatus.

3. The system according to Claim 1,

wherein accessed data for use in said first mode includes an operating system kernel for controlling said first apparatus and an application program to be used in said first mode.

4. The system according to Claim 1,

wherein said first apparatus outputs a rejection message in response to an access request originating from said second apparatus and destined for said first data storage device when said first apparatus is operating in said first mode,

said second computer apparatus receiving and displaying said message.

5. A computing apparatus, comprising:

a first electrically powered data storage device;

a durable electrically powered data storage device capable of withstanding higher levels of vibration than said first data storage device; and

a controller which controls access to said durable data storage device and which controls the flow of electrical power to said first and said durable data storage devices;

wherein said controller selects alternative operating modes including a first mode which supplies electrical power to said first and said durable data storage devices, and a second mode which supplies electrical power to said durable data storage device while suppressing electrical power to said first data storage device.

6. Apparatus according to Claim 5,

wherein said alternative operating modes further include a third mode in which said controller supplies no electrical power to said first and said durable data storage devices.

6b. Apparatus according to Claim 6,

wherein said controller selects said second mode of operation when a predetermined condition is satisfied while operating in said third mode.

7. Apparatus according to Claim 5,

wherein said durable storage device stores at least a start-up portion of an operating system, and

said start-up portion of said operating system is executed from said durable data storage device so as to start up said operating system upon receiving an external access request while operating in a predetermined mode which is one of a suspend mode or a hibernation mode.

8. Apparatus according to Claim 5,

wherein said first data storage device is a movable memory having a mechanically movable part, and

said durable data storage device is a solid-state memory having no mechanically movable part.

9. Apparatus according to Claim 8;

wherein said solid-state memory is a magnetic random access memory.

10. Apparatus according to Claim 5, wherein said controller further comprises:

a motion detector which detects when the apparatus is in a state of motion and generates a motion signal;

wherein said controller selects at least one of the alternative operating modes as a function of the motion signal.

11. Apparatus according to Claim 5, further comprising:

a communication module which communicates with and receives external access requests from an external device, and which generates an external access request signal in response to any external access request;

wherein said controller accesses said durable data storage device in response to the external access request signal.

12. Apparatus according to Claim 11,

wherein said durable data storage device stores at least a kernel of said operating system and an application program for processing on the external device.

13. A computer apparatus, comprising:

a first data storage device;

a second data storage device; and

a processor which accesses and executes programs stored in said first and said second storage devices, including a start-up program for self initialization from a low power operation mode, and which accepts external access requests provided by external devices;

wherein said first and said second data storage devices are used as external storage for storing external data, said second data storage device requiring a time shorter than said first data storage device for executing the start-up program, and

wherein said processor, when starting up, reads said start-up program from said second data storage device,

said processor, when accepting an external access request while in said low power operation mode, executes said start-up program from said second data storage device so as to self start and thereafter executes the external access request.

14. Apparatus according to Claim 13, further comprising:

a power supply controller, coupled to said processor and to said second data storage device, which controls of the flow of electrical power to said second data storage device under the control of said processor;

wherein said processor, when executing the external access request while in said low-power operation mode and while said second data storage device is powered off, instructs said power supply controller to supply electric power to said second data storage device.

15. A computer apparatus, comprising:

a first and a second electrically powered data storage device;

a request receiver which receives an external request provided by an external device; and

a power supply controller, coupled to said request receiver, which controls the supply of power to said first and said second data storage devices;

wherein said request receiver communicates a data read/write request to said power supply controller in response to the external request while said first and second data storage devices are powered off, and

said power supply controller maintains said first data storage device in a powered off state and changes the power state of and enables the reading/writing of data to said second data storage device in response to the data read/write request.

16. Apparatus according to Claim 15,

wherein said second data storage device is capable of withstanding higher levels of vibration than said first data storage device.

17. Apparatus according to Claim 15,

wherein said second data storage device stores at least a start-up program of an operating system, and

said request receiver, in response to the external request and while the operating system requires start-up, reads said start-up program from said second data storage device so as to start up the operating system.

18. A computer apparatus, comprising:

a detector which detects the presence of provided data storage devices capable of storing external data when a program is installed;

a storage device specification request device, coupled to said detector, which displays a panel requesting a selection of the provided data storage devices, provided by a user, to specify a data storage device to which to store the program in response to said detector detecting more than one provided data storage device; and

a program storage device, coupled to said storage device specification request device, in which to store the program according to the selection specified on said panel.

19. Apparatus according to Claim 18,

wherein each of said provided data storage devices requires a different amount of time between its start-up and its initial data access.

20. A computer program product comprising:

a computer usable medium having computer readable program code embodied therein for device selection, the computer readable program code in said computer program product effective in executing the steps of:

detecting presence of provided computer data storage devices in response to receiving a program installation request;

requesting user input to specify a data storage device selected from a plurality of said data storage devices in which to store said program when a plurality of said data storage devices is detected;

receiving the specification of said data storage device for storing said program in response to said request issued in said requesting step; and

storing said program in said specified data storage device according to said specification received in said receiving step.